



Chandler • Arizona
Where Values Make The Difference

Civil Engineering Paving Plan Review Checklist

Log No.: _____

C.I.P. No.: _____

Project:	
Location:	

Legend
/ Requirement satisfied.
O Requirement not satisfied.
? Unable to determine status, more information is required.
X Not applicable.

Review #	Reviewed By	Date
1		
2		
3		
4		
5		

The requirements referred to on the checklist can be found within Chapter 48 Subdivisions of the City Code and the City's Technical Design Manuals.

Item	Requirement	Comments
1.	The improvement plans must be submitted on 24" x 36" sheets. Please resubmit plans on correct size sheets.	
2.	Show the name of the proposed development on the cover sheet.	
3.	Show the developer's name, address, and phone number on the cover sheet.	
4.	Show the engineer's name, address, and phone number on the cover sheet.	
5.	Place a vicinity or site location map on the cover sheet.	

Mailing Address:
P.O. Box 4008, MS 406
Chandler, Arizona 85244-4008

Planning and Development Department
Civil Engineering Plan Review Section
215 E. Buffalo St., Chandler Arizona

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www.chandleraz.gov

Form No. UDM-27/Folder 430
Rev. 12-19-06

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Item	Requirement	Comments
6.	<p>Add the following approval block to the cover sheet:</p> <p>A. For Capital Improvement Projects</p> <p>APPROVED:</p> <p>_____ DIRECTOR OF PUBLIC WORKS DATE</p> <p>_____ CITY ENGINEER DATE</p> <p>B. For all other projects:</p> <p>APPROVED FOR COMPLIANCE WITH CITY CODE:</p> <p>_____ CITY ENGINEER DATE</p> <p>_____ DEVELOPMENT SERVICES DATE ENGINEER</p>	
7.	<p>The following current City Standard Notes must be shown, or corrected, on the cover or detail sheet:</p> <p>A. General Notes.</p> <p>B. Paving Notes.</p> <p>C. Signing and Striping Notes.</p>	
8.	<p>Reference all elevations shown on the plans to an approved City benchmark. The City's benchmark ID number (CMCN #) and verbatim description must match the latest edition of the <i>City of Chandler Vertical Control Base List</i>, and must be shown on the cover sheet.</p>	
9.	<p>Please coordinate the plans with the appropriate utility companies on the list below. Place a "utility coordination block" on the cover sheet; show names of the utility companies & the date plans were submitted to them.</p> <p>Air Products and Chemicals, Inc. Arizona Public Service AT&T Telephone Long Distance COX Cable El Paso Natural Gas Qwest Roosevelt Water Conservation District (RWCD) Salt River Project (power) Salt River Project (SRVWUA)</p>	

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Item	Requirement	Comments
	Kinder Morgan Energy Partners Southwest Gas Sprint Telephone Long Distance	
10.	The development is adjacent to a current City project/Improvement District. Coordinate your plans with the City Project/Improvement District Engineer. Add the following approval block to the cover sheet and acquire the engineer's signature. APPROVED FOR COORDINATION DATE (Add project name and number)	
11.	A portion of the improvements shown on your plans is within the jurisdiction of the state/county. Acquire the appropriate permit. Indicate the permit number on the cover sheet.	
12.	The overhead utility lines on or adjacent to this site must be undergrounded. Please add the following note to the cover sheet: The improvements shown on this set of plans will not be fully approved by the City, and the Certificate of Occupancy will not be issued, until the overhead utility line undergrounding and/or 69KV pole relocation requirement has been satisfied.	
13.	Underground the existing irrigation facilities on or adjacent to this site. Please add the following note to the cover sheet: The improvements shown on this set of plans will not be fully approved by the City and the Certificate of Occupancy will not be issued until the irrigation facility undergrounding requirement has been satisfied.	
14.	Please add the following note to the cover sheet: The existing retention and drainage facilities on this site will not be removed from service until the permanent retention and drainage facilities are functional.	

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Item	Requirement	Comments
15.	<p>Place the following certification on the cover sheet:</p> <p>I hereby certify the setbacks for utility poles, structures, and other similar facilities greater than 18 inches in height shall be 5.5 feet back of curb. In cases where the facilities are adjacent to a deceleration lane or bus bay, the setback can be reduced to 2.5 feet back of curb.</p> <p>_____ REGISTERED CIVIL ENGINEER DATE</p>	
16.	<p>Add the following on the lower right of the cover sheet over the title block:</p> <p>C. O. C. Log No._____</p>	
17.	<p>Place an index map with the following information on the cover sheet:</p> <p>A. Street names. B. Sheet numbers and limits. C. City limits where applicable. D. Phase limits and numbers if applicable. E. Model home area.</p>	
18.	<p>The minimum height of all text and symbols on the plans must be 0.1" (one tenth of one inch).</p>	
19.	<p>The engineer preparing the plans must sign, seal and date each sheet of the improvement plans.</p>	
20.	<p>This project includes arterial frontage. In addition to the design of the arterial frontage adjacent to the project, provide conceptual design of the arterial from the project boundaries to ¼ mile in each direction or to the nearest arterial intersection; whichever is the lesser distance.</p>	
21.	<p>Submit a soils report containing the following items:</p> <p>A. Atterberg Limits test results. B. Sieve analysis, gradation, test results. C. Swell test results per City standard.</p>	

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22.	Note the swell test results and compaction density requirements for all areas under concrete on the City paving notes. See <i>Technical Design Manual 4 - Street Design and Access Control</i> for compaction requirements.	
23.	The pavement cross-section design shown on the plans must comply with City standards.	
24.	Remove shading to facilitate microfilming.	
25.	<p>Show on the detail sheet the typical sections for each street to be improved. The sections must include the following items:</p> <p>A. Right-of-way width.</p> <p>B. Width of sidewalk.</p> <p>C. Width of improved surface; see the City's <i>Technical Design Manual 4 - Street Design and Access Control</i> for half-street minimum width requirements.</p> <p>D. Type of curb and gutter; e.g. roll, vertical or ribbon.</p> <p>E. Pavement cross-section. Include preservative seal coat for local and collector streets.</p> <p>F. Minimum allowable pavement cross-slope. Inverted crowns are not allowed under any circumstances.</p> <p>G. Pavement structural sections must conform to soils report test results.</p>	
26.	<p>Identify all portions of the development within the FEMA 100-year flood zones. If there are any such areas, submit plans to Flood Control District of Maricopa County. FCDMC approval is required.</p> <p>A. Add the following approval block to the cover sheet:</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>FLOOD CONTROL DISTRICT DATE OF MARICOPA COUNTY</p> </div> <p>B. Acquire Flood Control District of Maricopa County approval and signature.</p>	

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27.	If a model home area is part of the project, provide an all-weather fire apparatus access roadway prior to constructing any structure or bringing combustibles on-site. The roadway must be a minimum of 20 feet unobstructed width. The surface must consist of a minimum of 6 inch ABC at 100% compaction, on subgrade compacted to 95%. Provide access roadways exceeding 150 feet long with an approved turn around (per City of Chandler Standard Detail FD141) or looped roadway.	
28.	Bus bays or deceleration lanes are required; see the City's <i>Technical Design Manual 4 - Street Design and Access Control</i> for construction details.	
29.	Show the following layout items on each sheet: A. North arrows. B. Scale, plan and profile; see the City's <i>Technical Design Manual 4 - Street Design and Access Control</i> for requirements. C. Phase limits and numbers. D. Model home area limits.	
30.	Show the following utility reference items on each sheet: A. Show all existing utilities plan view. B. Show all proposed utilities in plan view. C. Show utility crossings in profile view when the crossings are not shown on utility plan sheets. D. Adjust all existing and proposed manholes under new pavement to grade per MAG Standard Detail 422 and MAG Specification Section 345 with concrete collar per City of Chandler Standard Detail C-401, and note on the plan view. E. Adjust all existing and proposed valve boxes and covers affected by construction to grade per MAG Standard Detail 270 and MAG Specification Section 345 with concrete collar per City of Chandler Standard Detail C-307 in paved areas and C-317 in unpaved areas, and note on the plan view.	

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Item	Requirement	Comments
31.	<p>Show the following design items on each sheet in plan view:</p> <ul style="list-style-type: none"> A. Existing right-of-way, with width dimensioned. B. Existing pavement, with width dimensioned. C. Existing curbs, with width dimensioned. D. Existing sidewalk, with width dimensioned. E. Existing sidewalk ramps. F. Proposed right-of-way, with width dimensioned. G. Proposed pavement, with width dimensioned. H. Proposed curbs, with width dimensioned and standard detail number call-out. I. Proposed sidewalk, with width dimensioned and standard detail number call-out. J. Proposed sidewalk ramps (MAG Standard Detail 231-A). K. Proposed sidewalk ramps at "T" intersections (MAG Standard Detail 233-C). The City Engineer may approve a modified ramp should space be a problem. L. A sidewalk ramp (MAG Standard Detail 233-C) at bubble is required per City of Chandler Standard Detail C-249. This is applied on an as needed basis unless voluntarily included. A modified ramp may be allowed. M. Note existing items "to be protected in place" N. Show all existing water wells within the right-of-way on the plans with their Arizona Department of Water Resources registration number. If not registered, so note on the plans. 	
32.	<p>All catch basins that have access covers shall be installed per City of Chandler Standard Detail C-505 and must be so noted on the plans.</p>	
33.	<p>Add note to plans:</p> <p>Existing trees within the City right-of-way to be protected in place or replaced in kind. Contact the City of Chandler Streets Division at (480) 782-3500 prior to start of construction.</p>	

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Item	Requirement	Comments
34.	<p>The following design items must be shown on each sheet in profile view:</p> <ul style="list-style-type: none"> A. Existing grade at right curb line. B. Existing grade at left curb line. C. Existing grade at centerline. D. Proposed grade at right curb line. E. Proposed grade at left curb line. F. Proposed grade at right median curb. G. Proposed grade at left median curb. H. Proposed grade at centerline. I. Proposed centerline elevation at curb return station on crown run-outs. Inverted crowns are not allowed. J. Label the proposed longitudinal grades. Compute longitudinal grades on curves based on their true lengths. The longitudinal grades must comply with City standards, 0.2% minimum. K. Storm drain crossings. L. Utility and other crossings whenever minimal cover, 1' or less below subgrade, is encountered. 	
35.	<p>Show the following additional items on each sheet in plan view:</p> <ul style="list-style-type: none"> A. Valley gutters at all locations where storm water will cross the street, with width and standard detail number called out or detailed. Show 3' width per MAG Standard Detail 240 at all local-to-local street intersections. Show 8' width per City of Chandler Standard Detail C-233 in the following conditions: <ul style="list-style-type: none"> 1) Mid-block on local and minor collector streets only. 2) At all collector street intersections with arterial streets where valley gutters are required or as directed by the City Engineer. <p>All valley gutters must have 1" depression to the flowline.</p> B. Curb transitions, with standard detail number call-out. C. Curb return radii per City standards. 	

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	<ul style="list-style-type: none"> D. Curb radii at cul-de-sacs and “bubbles” per City standards. E. Survey monuments, with standard detail number call-out. F. City limits where applicable. 	
36.	<p>Show construction details, plan and profile views for all proposed drainage facilities, such as:</p> <ul style="list-style-type: none"> A. Storm drains. B. Scuppers and catch basins. C. Hydraulic profile must be shown. D. Scupper and chute elevations are required. E. When catch basin per MAG Detail No. 533-1 is specified on plans, specify also: <ul style="list-style-type: none"> 1) Grate per MAG Detail No. 533-3. 2) Curb and gutter transition per MAG Detail No. 532. 	
37.	<p>Show the following traffic engineering items in plan view:</p> <ul style="list-style-type: none"> A. Street sign bases per City of Chandler Standard Detail C-613. B. Traffic control devices. <ul style="list-style-type: none"> 1) Stop sign = MUTCD R1-1, 30" x 30". 2) Speed limit = MUTCH R2-1, 24" x 30", speed per street class. C. Temporary turn-around at dead-end streets and phase lines. D. MAG Standard Detail 130 Type B Barricade with an 18"x18" or larger End of Road Marker, MUTCD OM4-3 (retroreflective red diamond panel), spaced 5' on center along the barricade is required. E. Signing and striping plans for arterials and/or special conditions. F. Signal conduit, 3" diameter schedule 40 P.V.C. with ADOT #7 pull boxes at future signalized intersections (four-way). G. Signal conduit, 2" diameter schedule 40 P.V.C. with ADOT #5 pull boxes every 400 feet. 	

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Item	Requirement	Comments
38.	<p>Show the following survey design items on each sheet:</p> <ul style="list-style-type: none"> A. Station numbers with sheet reference at all match lines in plan or profile. B. Centerline survey data. C. Station numbers at all changes in street alignment, intersections, curb returns, and grade breaks in profile. D. Gutter and centerline spot elevations at all grade breaks. E. Gutter spot elevations at all intersections. F. Centerline spot elevations at all intersections. G. Show grade breaks in plan. 	
39.	<p>Street geometrics must meet City standards for the following items:</p> <ul style="list-style-type: none"> A. Centerline radii. B. Tangent lengths between curves. C. Tangent lengths at intersections. D. Pavement tapers. E. Intersection angles. F. Vertical curve lengths. G. Maximum longitudinal slope changes. H. Barrier median construction. I. Driveway installations. 	
40.	<p>Sufficient existing off-site elevations required to determine grade and direction of slope.</p>	
41.	<p>Structural design calculations are required for storm drains subject to wheel loading.</p>	
42.	<p>Complete and submit (with mylars for final approval) the Certificate of Quantities, sealed, including signature and date, by the Civil Engineer.</p>	

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Item	Requirement	Comments
43.	<p>An easement or right-of-way dedication is required by separate instrument. Please provide the following exhibits and/or information along with the easement document:</p> <p>A. Subdivision name.</p> <p>B. Type of easement/R.O.W.</p> <p>C. Reason or purpose of the easement/R.O.W. and why required.</p> <p>D. Vicinity Map showing major cross streets.</p> <p>E. Legal description with RLS certification.</p> <p>F. Detail map showing the easement/R.O.W.</p> <p>G. A current title report.</p> <p>H. If right-of-way is to be dedicated, provide for review a Phase 1 Environmental Assessment in compliance with ASTM E 1527 (current form) <i>Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process</i>.</p>	
44.	<p>A street cut application must be submitted to the City and approved by the City Engineer prior to plan approval. The status of your application is:</p> <p>A. Please submit application.</p> <p>B. Application is currently under review.</p> <p>C. Application has been denied.</p> <p>D. Application has been approved.</p>	

Please return this checklist with the next plan submittal

City Use Only

1. Street Supervisor review?
2. Traffic Engineer review?